

IN THE CLAIMS

Please amend the claims as shown in the marked-up copy attached to read as follows:

1. (Amended) A peroxidase enzyme derived from Geotrichum candidum Dec 1 FERM BP-7032, which has the following properties:
 - a) a property to degrade and decolorize a dye;
 - b) a molecular weight of 60 kDa, by the molecular weight assay as determined by SDS-PAGE;
 - c) a molecular weight of 55 kDa, by the molecular weight assay as determined by gel filtration; and
 - d) pI 3.8, as determined by an assay of isoelectric focusing.
2. (Twice Amended) The enzyme according to claim 1, having an amino acid sequence of SEQ ID NO. 7.
3. (Amended) A gene encoding the enzyme according to claim 1, having a DNA sequence of SEQ ID NO. 8.
4. (Amended) An expression plasmid vector comprising the gene according to claim 3.
5. (Amended) A microorganism FERM BP-7032 transformed with the expression plasmid vector according to claim 4.
6. (Twice Amended) A method for degrading and decolorizing a dye, comprising

contacting a peroxidase enzyme derived from Geotrichum candidum Dec 1 FERM BP-7033, which has the following properties:

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- a) a property to degrade and decolorize a dye;
 - b) a molecular weight of 60 kDa, by the molecular weight assay as determined by SDS-PAGE;
 - c) a molecular weight of 55 kDa, by the molecular weight assay as determined by gel filtration; and
 - d) pI 3.8, as determined by the assay of isoelectric focusing, or the microorganism according to claim 5 with the dye.

Please add the following claims.

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- 7. (New) A method of culturing the microorganism according to Claim 5, comprising contacting the microorganism of Claim 5 with a culture medium.
 - 8. (New) The method according to Claim 7, wherein the contacting is performed in a potato dextrose culture medium.
 - 9. (New) The method according to Claim 7, wherein the contacting is performed at a temperature of from 15 to 37°C.
 - 10. (New) The method according to Claim 7, wherein the contacting is performed for a time of from 3 to 8 days.

11. (New) A method of making the enzyme according to Claim 1, comprising contacting a microorganism comprising a DNA sequence of SEQ ID NO. 8 with a culture medium.

12. (New) The method according to Claim 11, further comprising separating the microorganism from the culture medium to produce a crude enzyme solution.

13. (New) The method according to Claim 12, further comprising concentrating crude enzyme solution.

14. (New) The method according to Claim 12, further comprising desalting the crude enzyme solution.

15. (New) The method according to Claim 12, further comprising isolating the enzyme from the crude enzyme solution.

16. (New) The method according to Claim 6, wherein the dye is an azo-containing or anthraquinone-containing dye.

17. (New) The method according to Claim 6, wherein the dye is at least one member selected from the group consisting of Reactive black 5, Reactive red 33, Reactive yellow 2, Reactive blue 182, Reactive blue 19, Reactive blue 5,

Reactive blue 114, 1-amino-4-(3-amino-4-sodium-sulfonamylino)-2-sodium anthraquinone sulfonate, and 1-amino-4-methylamino-2-sodium-anthraquinone sulfonate.

18. (New) The method according to Claim 6, wherein
the dye is at least one phenolic compound selected from the group consisting of 2,6-dimethoxyphenol and guaiacol.

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19. (New) The method according to Claim 6, wherein
the contacting is performed at temperature ranging from 15 to 35°C.

20. (New) The method according to Claim 6, wherein the enzyme is immobilized.

SUPPORT FOR THE AMENDMENT

The specification and claims have been amended in order to remove minor typographical errors in accordance with the Examiner's suggestion. It should be noted that these claims are not narrowing whatsoever. Further, they address all of the Examiner's issues regarding proper form. Accordingly, Applicants expect the above amendment to place the claims in condition for allowance and respectfully request the Office to not issue a final Office Action because the above minor amendments to the claims could not possibly spark new grounds for rejections. No new matter is believed to be introduced by the amendment. New Claims 7-20 are added. These claims are clearly supported throughout the specification and are drawn to specific embodiments therein. No new matter is believed to be entered by these additional claims.